



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

V. — A PROVISIONAL KEY TO THE SPECIES OF POROPHYLLUM, RANGING NORTH OF THE ISTHMUS OF PANAMA.

\* Leaves with broad obtuse ovate or elliptic-oblong usually thin lamina, rather abruptly contracted at the base to a slender petiole.

+ Heads very long; involucral scales at maturity 8 to 12 lines in length: peduncles conspicuously clavate: erect scarcely distinct annuals.

1. *P. macrocephalum*, DC. Prodr. v. 648.

2. *P. ruderale*, Cass. Dict. Sci. Nat. xliii. 56.

3. *P. ellipticum*, Cass. l. c.

+ + Heads shorter; involucral scales about half inch in length: peduncles scarcely or not at all thickened toward the summit.

+ + Leaves with pellucid glands on the surface as well as at the margins.

4. *P. Ervendbergii*, Gray, Proc. Am. Acad. xix. 35.

5. *P. nummularium*, DC. l. c. 649.

+ + Glands of the leaves marginal or none.

= Leaves broad, thickish: petioles rather short: probably a single species.

6. *P. viridiflorum*, DC. l. c. 648.

7. *P. Lindenii*, Schz. Bip. in Seem. Bot. Herald, 308.

= = Leaves thin and delicate.

a. Heads nodding or almost pendulous.

8. *P. nutans*. Leafy shrub with slender terete fuscous branches (marked with small light colored lenticels) and almost filiform branchlets: leaves thin, elliptic, entire, or crenulate, obtuse but often mucronulate at the apex, obtuse or acutish at the base, 8 to 14 lines long, half as broad; marginal glands 4 to 6 on each side the leaf; petioles filiform, 3 or 4 lines long: heads numerous, about 9 lines long: peduncles clustered at the ends of the branches in 3's and 4's: involucral scales 5, oblong, obtuse, 6 lines long, somewhat carinate, green, with double row of linear glands: flowers white or nearly so, 9 lines in length; limb of the corolla sub-bilabiate, shallowly toothed: achenes 5 lines in length. — Collected by *C. G. Pringle*, in mountains near Lake Chapala, 16 December, 1889, no. 2976, and by the same collector on rocky hills, Querendaro, Michoacan, 25 October, 1892; later by *E. W. Nelson*, between Chilapa and Tixtla, Oaxaca, altitude 5,200 to 7,000 feet, no. 2170. Mr. Pringle's plants were at first determined as *P. Ervendbergii* and so distributed. On subsequent comparison with that species they appear thoroughly distinct, having only marginal glands on the leaves, nodding instead of erect peduncles, less deeply cleft corolla, and longer achenes.

b. Heads erect : slender annual.

9. *P. Pringlei*, Robinson, Proc. Am. Acad. xxvii. 178.

c. Heads erect : shrubs.

10. *P. Jorullense*, Cass. "Leaves 1 inch long, eglandular : petioles 6 to 7 lines long : scales of the involucre green." Dict. Sci. Nat. xliii. 57. *Kleinia Jorullensis*, HBK. Nov. Gen. & Spec. iv. 156, t. 356, whence description.

11. *P. Nelsonii*. Branching shrub, 1 to 2 feet high : stems terete, striate, purple : leaves chiefly opposite, rather small and distant ; blade elliptic or oblong, obtuse, 6 to 8 lines long, 2 to 3 lines broad, rather gradually narrowed to a slender petiole (2 or 3 lines in length) ; glands few on the margin or often only a single one at the end of the mid-nerve : heads subcorymbose at the ends of the branches, 7 lines long, about 30-flowered ; scales of the involucre 5, linear-oblong, acute, purple especially toward the summit, flat, marked with 2 rows of linear glands : corollas dark purple,  $3\frac{1}{2}$  inches long : achenes strongly tapering, 3 to  $3\frac{1}{2}$  lines in length. — Collected by *E. W. Nelson*, in Oaxaca, between Panixtlahuaca and Jaquila, altitude 5,000 feet, 26 February, 1895, no. 2399 ; also between Nopala and Mixistepic, altitude 800 to 4,000 feet, March, 1895.

\* \* Leaves rather broadly lanceolate, acute at both ends, slender-petioled.

12. *P. Palmeri*, Rose, Contrib. U. S. Nat. Herb. i. 338, t. 34.

\* \* \* Leaves narrowly elliptic- or linear-oblong, obtuse or obtusish, gradually narrowed to a sessile or short-petioled base.

13. *P. Seemannii*, Schz. Bip. l. c.

14. *P. obtusifolium*, DC. l. c. 650.

15. *P. decumbens*, DC. l. c.

\* \* \* \* Leaves lance-linear, sessile, and amplexicaul.

16. *P. amplexicaule*, Engelm. in Gray, Pl. Wright. i. 120.

\* \* \* \* \* Annuals or more commonly perennials, often shrubby at the base : leaves very narrow ; truly linear or subulate, or lance-linear and acute or acutish, sessile or subsessile, but not amplexicaul.

+ Mexican species : corolla shallowly and regularly 5-toothed ; teeth deltoid : achenes  $2\frac{1}{2}$  to  $3\frac{1}{2}$  lines long : involucre scales green or glaucous, not dark purple.

17. *P. scoparium*, Gray. Leaves truly linear or terete, half a line in breadth : peduncles inch or more in length. — Pl. Wright. i. 119.

18. *P. pausodinum*. Shrub : stems geniculate, branched, covered with smooth reddish brown cortex : branchlets straight, erect, sulcate-angulate, glaucescent : leaves scattered, linear-lanceolate, narrowed to an obtusish apex, attenuate at the base to a short petiole, slightly succulent,

3-nerved, slightly reticulated, 2 inches long, 2 to  $2\frac{1}{2}$  lines broad, entire; marginal glands elliptical, usually 2 or 3 on each side and often one at the end of each leaf: heads 6 to 8 lines long, 25–30-flowered, rather densely clustered in terminal flat-topped leafy cymose corymbs (2 or 3 inches in breadth); individual peduncles shorter than the heads: scales of the cylindrical involucre 5, oblong, obtuse or rounded at the apex, 5 lines long, 1 to  $1\frac{1}{2}$  lines broad, pale green, with a double line of dark linear glands near the middle: flowers white. — *P. Seemannii*, Wats. Proc. Am. Acad. xxiv. 57; Brandegee, Zoe, i. 313; not Schz. Bip. — Collected by Dr. Edward Palmer in crevices of exposed rocks in high mountains near Guaymas, Sonora, 1887, no. 279 (distributed as *P. Seemannii*, var.). According to Dr. Palmer's notes the plant is called *Maravilla* by the Mexicans and used for headache.

+ + Mexican species with corolla more deeply cleft and more or less distinctly bilabiate; teeth lanceolate; achenes  $2\frac{1}{2}$  to  $3\frac{1}{2}$  lines in length.

+ + Achenes long and slender, tapering at the apex, about 4 lines long.

19. *P. gracile*, Benth. Leaves fleshy, subterete. — Bot. Sulph. 29.

20. *P. n. sp.?* aff. *P. gracile*. Leaves not fleshy, flat, very narrowly lance-linear, 1 to 2 inches long, a line or two broad, with regular marginal glands: heads solitary, terminal on very short slender peduncles: cylindrical involucre green, slender; scales with purple border and glands. — A tall slender, much branched leafy plant collected at Fronteras, Sonora, by C. V. Hartman, altitude 4,550 feet, 25 September, 1890, no. 8.

+ + Achenes shorter, 2 to 3 lines long: involucre very dark-purple, often pruinose-glaucous.

= = Spreading annuals: very likely a single species.

21. *P. coloratum*, DC. Prodr. v. 650.

22. *P. tagetoides*, DC. l. c.

= = Perennials, a little shrubby at the base.

a. Involucral scales obovate, very broad and obtuse.

23. *P. filifolium*, Gray, Proc. Am. Acad. xviii. 107, xix. 35.

b. Involucral scales narrower, oblong.

24. *P. Linaria*, DC. l. c. 649.

+ + + Lower Californian shrubs, with geniculate and much branched stems, short subulate fleshy leaves, and short many-flowered heads: achenes only  $1\frac{1}{2}$  lines in length.

25. *P. crassifolium*, Wats. Proc. Am. Acad. xxiv. 57.

26. *P. tridentatum*, Benth. Bot. Sulph. 30.